

Title (en)

IN SITU PROCESS FOR MAKING A BIMODAL HIPS HAVING BOTH HIGH GLOSS AND HIGH IMPACT STRENGTH

Title (de)

IN SITU VERFAHREN ZUR HERSTELLUNG VON BIMODALEM HIPS MIT GLEICHZEITIG HOHEM GLANZ UND HOHER SCHLAGZÄHIGKEIT

Title (fr)

PROCEDE DE FABRICATION ϕ (IN SITU) DE POLYSTYRENE BIMODAL A HAUTE RESILIENCE ET BRILLANCE ELEVEE

Publication

EP 0983308 B1 20020724 (EN)

Application

EP 98913349 A 19980331

Priority

- US 9806416 W 19980331
- US 86222397 A 19970523

Abstract (en)

[origin: WO9852985A1] A continuous bulk polymerization process for making a high gloss, high impact strength polystyrene based resin having a bimodal particle size distribution containing capsule particles having an average size of 0.2 to 0.6 microns and cellular particles having an average particle size of 1.2 to 8.0 microns. The process comprises three reaction zones in series where styrene and a styrene-butadiene copolymer are fed to the first reaction zone which is maintained at pre-phase inversion conditions and no particles are allowed to form. The capsule particles form in the second reaction zone which is maintained at post-phase inversion conditions. Polybutadiene is introduced into the third reaction zone which is also maintained at post-phase inversion conditions. The cellular morphology particles form in the third reaction zone. The resultant bimodal particle size polymer mixture may be subjected to devolatilization after the third reaction zone or, alternatively, the mixture can be subjected to further polymerization in one or more finishing reactors prior to polymerization.

IPC 1-7

C08F 279/02

IPC 8 full level

C08F 2/00 (2006.01); **C08F 279/02** (2006.01); **C08F 287/00** (2006.01); **C08L 51/04** (2006.01); **C08L 53/02** (2006.01)

CPC (source: EP US)

C08F 279/02 (2013.01 - EP US); **C08F 287/00** (2013.01 - EP US); **C08L 51/04** (2013.01 - EP US); **C08L 53/02** (2013.01 - EP US)

C-Set (source: EP US)

1. **C08F 279/02 + C08F 212/08**
2. **C08F 287/00 + C08F 212/08**
3. **C08L 53/02 + C08L 2666/04**

Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

WO 9852985 A1 19981126; AU 6791998 A 19981211; CA 2289484 A1 19981126; CA 2289484 C 20070327; CN 1145652 C 20040414; CN 1256699 A 20000614; DE 69806751 D1 20020829; DE 69806751 T2 20030313; EP 0983308 A1 20000308; EP 0983308 B1 20020724; JP 2001525886 A 20011211; MX 216780 B 20031007; MX 9910003 A 20000430; US 5985997 A 19991116

DOCDB simple family (application)

US 9806416 W 19980331; AU 6791998 A 19980331; CA 2289484 A 19980331; CN 98805199 A 19980331; DE 69806751 T 19980331; EP 98913349 A 19980331; JP 55035098 A 19980331; MX 9910003 A 19991029; US 86222397 A 19970523